

Per/09

CRF Errors Corrected by the STIC Systems Branch

Serial Number: 09/914,151

CRF Processing Date: 10/3/2001
Edited by: [Signature]
Verified by: [Signature] (STIC staff)

ENTERED

KW

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: _____
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: _____
- ☐ Deleted extra, invalid, headings-used by an applicant, specifically: _____
- ☐ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically: _____
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: _____
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted ending stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☒ Other: altered amino acid res. in Seq. 1

RAW SEQUENCE LISTING

DATE: 10/03/2001

PATENT APPLICATION: US/09/914,151

TIME: 17:10:09

Input Set : A:\pto.txt

Output Set: N:\CRF3\10032001\I914151.raw

3 <110> APPLICANT: Juridical Foundation, Japanese Foundation For Cancer Research
5 <120> TITLE OF INVENTION: vector for gene therapy of malignant melanoma, with use of
virus h
6 aving MSH fused protein.
8 <130> FILE REFERENCE: H11-0241J2
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/914,151
C--> 10 <141> CURRENT FILING DATE: 2001-08-24
10 <160> NUMBER OF SEQ ID NOS: 39
12 <170> SOFTWARE: PatentIn Ver. 2.0
14 <210> SEQ ID NO: 1
15 <211> LENGTH: 166
16 <212> TYPE: DNA
17 <213> ORGANISM: Artificial Sequence
19 <220> FEATURE:
20 <223> OTHER INFORMATION: DNA coding a part of adenovirus type 5 fiber, AS linker
peptide an
21 d Y-MSH.
23 <220> FEATURE:
24 <221> NAME/KEY: CDS
25 <222> LOCATION: (3)..(113)
27 <400> SEQUENCE: 1
28 gg gaa ttc tcg agt tac act ttt tca tac att gcc caa gaa cca tca 47
29 Glu Phe Ser Ser Tyr Thr Phe Ser Tyr Ile Ala Gln Glu Pro Ser
30 1 5 10 15
31 gcc tcc gca tct gct tcc gcc cct gga tcc tac tcc atg gag cac ttc 95
32 Ala Ser Ala Ser Ala Ser Ala Pro Gly Ser Tyr Ser Met Glu His Phe
33 20 25 30
34 cgc tgg ggc aag ccg gtg taaagaatcg tttgtgttat gtttcaacgt 143
35 Arg Trp Gly Lys Pro Val
36 35
37 gtttattttt caattgaatt ccc 166
40 <210> SEQ ID NO: 2
41 <211> LENGTH: 126
42 <212> TYPE: DNA
43 <213> ORGANISM: Artificial Sequence
45 <220> FEATURE:
46 <223> OTHER INFORMATION: synthetic DNA No.924 used as template for PCR amplification
of DNA
47 sequence No.1.
49 <400> SEQUENCE: 2
50 cgttgaaaca taacacaaac gattctttac accggcttgc cccagcggaa gtgctccatg 60
51 gagtaggatc caggggcgga agcagatgcg gaggctgatg gttcttgggc aatgtatgaa 120
52 aaagtg 126
55 <210> SEQ ID NO: 3
56 <211> LENGTH: 39
57 <212> TYPE: DNA
58 <213> ORGANISM: Artificial Sequence
60 <220> FEATURE:
61 <223> OTHER INFORMATION: synthetic DNA No.933 used as sense primer for PCR
amplification of
62 DNA sequence No.1.

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64 <400> SEQUENCE: 3
65   gggaattctc gagttacact tttcataca ttgcccaag           39
68 <210> SEQ ID NO: 4
69 <211> LENGTH: 49
70 <212> TYPE: DNA
71 <213> ORGANISM: Artificial Sequence
73 <220> FEATURE:
74 <223> OTHER INFORMATION: synthetic DNA No.934 used as antisense primer for PCR
amplification
75   of DNA sequence No.1.
77 <400> SEQUENCE: 4
78   gggaattcaa ttgaaaaata aacacgttga aacataacac aaacgattc           49
81 <210> SEQ ID NO: 5
82 <211> LENGTH: 76
83 <212> TYPE: DNA
84 <213> ORGANISM: Artificial Sequence
86 <220> FEATURE:
87 <223> OTHER INFORMATION: synthetic DNA No.1061 used as sense primer for PCR
amplification of
88   DNA coding Y"-MSH and adenovirus fiber poly A signal.
90 <400> SEQUENCE: 5
91   cgggatccta ctccatggag cacttccgct ggggcaagcc ggtgtaagtc gacaagaata           60
92   aagaatcggt tgtgtt           76
94 <210> SEQ ID NO: 6
95 <211> LENGTH: 32
96 <212> TYPE: DNA
97 <213> ORGANISM: Artificial Sequence
99 <220> FEATURE:
100 <223> OTHER INFORMATION: synthetic DNA No.1092 used as antisense primer for PCR
amplificati
101   on of DNA coding Y"-MSH and adenovirus fiber poly A signal.
103 <400> SEQUENCE: 6
104   cggaattcat ggcgccatgt ttaatcagag gt           32
107 <210> SEQ ID NO: 7
108 <211> LENGTH: 1818
109 <212> TYPE: DNA
110 <213> ORGANISM: Artificial Sequence
112 <220> FEATURE:
113 <223> OTHER INFORMATION: DNA coding a modified fiber protein of pWE6.7R-F/asMSHa
115 <220> FEATURE:
116 <221> NAME/KEY: CDS
117 <222> LOCATION: (1)..(1815)
119 <400> SEQUENCE: 7
120   atg aag cgc gca aga ccg tct gaa gat acc ttc aac ccc gtg tat cca           48
121   Met Lys Arg Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro
122   1           5           10           15
124   tat gac acg gaa acc ggt cct cca act gtg cct ttt ctt act cct ccc           96
125   Tyr Asp Thr Glu Thr Gly Pro Pro Thr Val Pro Phe Leu Thr Pro Pro
126   20           25           30
128   ttt gta tcc ccc aat ggg ttt caa gag agt ccc cct ggg gta ctc tct           144
129   Phe Val Ser Pro Asn Gly Phe Gln Glu Ser Pro Pro Gly Val Leu Ser
130   35           40           45

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132	ttg cgc cta tcc gaa cct cta gtt acc tcc aat ggc atg ctt gcg ctc	192
133	Leu Arg Leu Ser Glu Pro Leu Val Thr Ser Asn Gly Met Leu Ala Leu	
134	50 55 60	
136	aaa atg ggc aac ggc ctc tct ctg gac gag gcc ggc aac ctt acc tcc	240
137	Lys Met Gly Asn Gly Leu Ser Leu Asp Glu Ala Gly Asn Leu Thr Ser	
138	65 70 75 80	
140	caa aat gta acc act gtg agc cca cct ctc aaa aaa acc aag tca aac	288
141	Gln Asn Val Thr Thr Val Ser Pro Pro Leu Lys Lys Thr Lys Ser Asn	
142	85 90 95	
144	ata aac ctg gaa ata tct gca ccc ctc aca gtt acc tca gaa gcc cta	336
145	Ile Asn Leu Glu Ile Ser Ala Pro Leu Thr Val Thr Ser Glu Ala Leu	
146	100 105 110	
148	act gtg gct gcc gcc gca cct cta atg gtc gcg ggc aac aca ctc acc	384
149	Thr Val Ala Ala Ala Ala Pro Leu Met Val Ala Gly Asn Thr Leu Thr	
150	115 120 125	
152	atg caa tca cag gcc ccg cta acc gtg cac gac tcc aaa ctt agc att	432
153	Met Gln Ser Gln Ala Pro Leu Thr Val His Asp Ser Lys Leu Ser Ile	
154	130 135 140	
156	gcc acc caa gga ccc ctc aca gtg tca gaa gga aag cta gcc ctg caa	480
157	Ala Thr Gln Gly Pro Leu Thr Val Ser Glu Gly Lys Leu Ala Leu Gln	
158	145 150 155 160	
160	aca tca ggc ccc ctc acc acc acc gat agc agt acc ctt act atc act	528
161	Thr Ser Gly Pro Leu Thr Thr Thr Asp Ser Ser Thr Leu Thr Ile Thr	
162	165 170 175	
164	gcc tca ccc cct cta act act gcc act ggt agc ttg ggc att gac ttg	576
165	Ala Ser Pro Pro Leu Thr Thr Ala Thr Gly Ser Leu Gly Ile Asp Leu	
166	180 185 190	
168	aaa gag ccc att tat aca caa aat gga aaa cta gga cta aag tac ggg	624
169	Lys Glu Pro Ile Tyr Thr Gln Asn Gly Lys Leu Gly Leu Lys Tyr Gly	
170	195 200 205	
172	gct cct ttg cat gta aca gac gac cta aac act ttg acc gta gca act	672
173	Ala Pro Leu His Val Thr Asp Asp Leu Asn Thr Leu Thr Val Ala Thr	
174	210 215 220	
176	ggt cca ggt gtg act att aat aat act tcc ttg caa act aaa gtt act	720
177	Gly Pro Gly Val Thr Ile Asn Asn Thr Ser Leu Gln Thr Lys Val Thr	
178	225 230 235 240	
180	gga gcc ttg ggt ttt gat tca caa ggc aat atg caa ctt aat gta gca	768
181	Gly Ala Leu Gly Phe Asp Ser Gln Gly Asn Met Gln Leu Asn Val Ala	
182	245 250 255	
184	gga gga cta agg att gat tct caa aac aga cgc ctt ata ctt gat gtt	816
185	Gly Gly Leu Arg Ile Asp Ser Gln Asn Arg Arg Leu Ile Leu Asp Val	
186	260 265 270	
188	agt tat ccg ttt gat gct caa aac caa cta aat cta aga cta gga cag	864
189	Ser Tyr Pro Phe Asp Ala Gln Asn Gln Leu Asn Leu Arg Leu Gly Gln	
190	275 280 285	
192	ggc cct ctt ttt ata aac tca gcc cac aac ttg gat att aac tac aac	912
193	Gly Pro Leu Phe Ile Asn Ser Ala His Asn Leu Asp Ile Asn Tyr Asn	
194	290 295 300	
196	aaa ggc ctt tac ttg ttt aca gct tca aac aat tcc aaa aag ctt gag	960

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197	Lys Gly Leu Tyr Leu Phe Thr Ala Ser Asn Asn Ser Lys Lys Leu Glu	
198	305 310 315 320	
200	gtt aac cta agc act gcc aag ggg ttg atg ttt gac gct aca gcc ata	1008
201	Val Asn Leu Ser Thr Ala Lys Gly Leu Met Phe Asp Ala Thr Ala Ile	
202	325 330 335	
204	gcc att aat gca gga gat ggg ctt gaa ttt ggt tca cct aat gca cca	1056
205	Ala Ile Asn Ala Gly Asp Gly Leu Glu Phe Gly Ser Pro Asn Ala Pro	
206	340 345 350	
208	aac aca aat ccc ctc aaa aca aaa att ggc cat ggc cta gaa ttt gat	1104
209	Asn Thr Asn Pro Leu Lys Thr Lys Ile Gly His Gly Leu Glu Phe Asp	
210	355 360 365	
212	tca aac aag gct atg gtt cct aaa cta gga act ggc ctt agt ttt gac	1152
213	Ser Asn Lys Ala Met Val Pro Lys Leu Gly Thr Gly Leu Ser Phe Asp	
214	370 375 380	
216	agc aca ggt gcc att aca gta gga aac aaa aat aat gat aag cta act	1200
217	Ser Thr Gly Ala Ile Thr Val Gly Asn Lys Asn Asn Asp Lys Leu Thr	
218	385 390 395 400	
220	ttg tgg acc aca cca gct cca tct cct aac tgt aga cta aat gca gag	1248
221	Leu Trp Thr Thr Pro Ala Pro Ser Pro Asn Cys Arg Leu Asn Ala Glu	
222	405 410 415	
224	aaa gat gct aaa ctc act ttg gtc tta aca aaa tgt ggc agt caa ata	1296
225	Lys Asp Ala Lys Leu Thr Leu Val Leu Thr Lys Cys Gly Ser Gln Ile	
226	420 425 430	
228	ctt gct aca gtt tca gtt ttg gct gtt aaa ggc agt ttg gct cca ata	1344
229	Leu Ala Thr Val Ser Val Leu Ala Val Lys Gly Ser Leu Ala Pro Ile	
230	435 440 445	
232	tct gga aca gtt caa agt gct cat ctt att ata aga ttt gac gaa aat	1392
233	Ser Gly Thr Val Gln Ser Ala His Leu Ile Ile Arg Phe Asp Glu Asn	
234	450 455 460	
236	gga gtg cta cta aac aat tcc ttc ctg gac cca gaa tat tgg aac ttt	1440
237	Gly Val Leu Leu Asn Asn Ser Phe Leu Asp Pro Glu Tyr Trp Asn Phe	
238	465 470 475 480	
240	aga aat gga gat ctt act gaa ggc aca gcc tat aca aac gct gtt gga	1488
241	Arg Asn Gly Asp Leu Thr Glu Gly Thr Ala Tyr Thr Asn Ala Val Gly	
242	485 490 495	
244	ttt atg cct aac cta tca gct tat cca aaa tct cac ggt aaa act gcc	1536
245	Phe Met Pro Asn Leu Ser Ala Tyr Pro Lys Ser His Gly Lys Thr Ala	
246	500 505 510	
248	aaa agt aac att gtc agt caa gtt tac tta aac gga gac aaa act aaa	1584
249	Lys Ser Asn Ile Val Ser Gln Val Tyr Leu Asn Gly Asp Lys Thr Lys	
250	515 520 525	
252	cct gta aca cta acc att aca cta aac ggt aca cag gaa aca gga gac	1632
253	Pro Val Thr Leu Thr Ile Thr Leu Asn Gly Thr Gln Glu Thr Gly Asp	
254	530 535 540	
256	aca act cca agt gca tac tct atg tca ttt tca tgg gac tgg tct ggc	1680
257	Thr Thr Pro Ser Ala Tyr Ser Met Ser Phe Ser Trp Asp Trp Ser Gly	
258	545 550 555 560	
260	cac aac tac att aat gaa ata ttt gcc acc tcg agt tac act ttt tca	1728
261	His Asn Tyr Ile Asn Glu Ile Phe Ala Thr Ser Ser Tyr Thr Phe Ser	

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262          565          570          575
264   tac att gcc caa gaa cca tca gcc tcc gca tct gct tcc gcc cct gga   1776
265   Tyr Ile Ala Gln Glu Pro Ser Ala Ser Ala Ser Ala Ser Ala Pro Gly
266          580          585          590
268   tcc tac tcc atg gag cac ttc cgc tgg ggc aag ccg gtg taa   1818
269   Ser Tyr Ser Met Glu His Phe Arg Trp Gly Lys Pro Val
270          595          600          605
273 <210> SEQ ID NO: 8
274 <211> LENGTH: 40
275 <212> TYPE: DNA
276 <213> ORGANISM: Artificial Sequence
278 <220> FEATURE:
279 <223> OTHER INFORMATION: synthetic DNA No.1037 used as sense primer for PCR
amplification of
280   DNA coding human MSH receptor residue 1-154.
282 <400> SEQUENCE: 8
283   gggaattcac catggctgtg cagggatccc agagaagact   40
286 <210> SEQ ID NO: 9
287 <211> LENGTH: 33
288 <212> TYPE: DNA
289 <213> ORGANISM: Artificial Sequence
291 <220> FEATURE:
292 <223> OTHER INFORMATION: synthetic DNA No.1038 used as antisense primer for PCR
amplification
293   of DNA coding human MSH receptor residue 150-317.
295 <400> SEQUENCE: 9
296   gggaattcac caggagcatg tcagcacctc ctt   33
299 <210> SEQ ID NO: 10
300 <211> LENGTH: 27
301 <212> TYPE: DNA
302 <213> ORGANISM: Artificial Sequence
304 <220> FEATURE:
305 <223> OTHER INFORMATION: synthetic DNA No.1039 used as sense primer for PCR
amplification of
306   DNA coding human MSH receptor residue 150-317.
308 <400> SEQUENCE: 10
309   ctgcggtacc acagcatcgt gaccctg   27
311 <210> SEQ ID NO: 11
312 <211> LENGTH: 27
313 <212> TYPE: DNA
314 <213> ORGANISM: Artificial Sequence
316 <220> FEATURE:
317 <223> OTHER INFORMATION: synthetic DNA No.1040 used as antisense primer for PCR
amplification
318   of DNA coding human MSH receptor residue 1-154.
320 <400> SEQUENCE: 11
321   gctgtggtac cgcagtgcgt agaagat   27
324 <210> SEQ ID NO: 12
325 <211> LENGTH: 107
326 <212> TYPE: DNA
327 <213> ORGANISM: Artificial Sequence
329 <220> FEATURE:
330 <223> OTHER INFORMATION: synthetic DNA No.1075 used as sense primer for PCR

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amplification of

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/914,151

DATE: 10/03/2001

TIME: 17:10:10

Input Set : A:\pto.txt

Output Set: N:\CRF3\10032001\I914151.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date